

In re Application of:
Beachy et al.
Application No.: Not Yet Assigned
US Submission Date: March 29, 2006
Based on Intl Appl: PCT/US2004/03214
IA Filing Date: September 29, 2004
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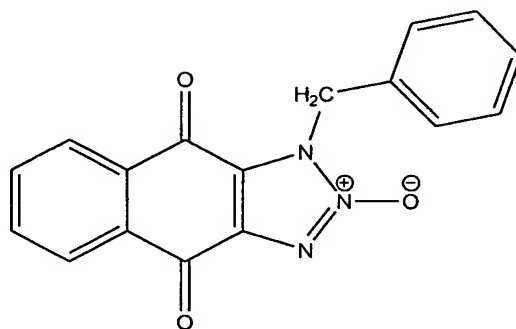
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B. In the Claims

Please amend claims 15, 20 to 23, 37 and 39 without prejudice.

Upon entry of the present amendment, the claims will stand as follows in the present application:

1. (original) A compound having structure (I):



(I)

or a pharmaceutically acceptable salt thereof.

2. (original) A compound having structure (II):

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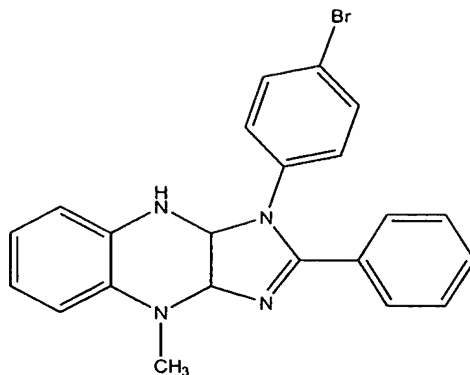
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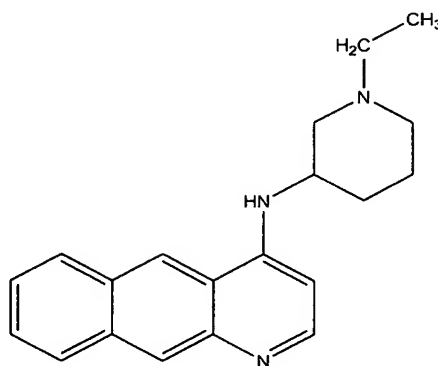
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(II)

or a pharmaceutically acceptable salt thereof.

3. (original) A compound having structure (III):



(III)

or a pharmaceutically acceptable salt thereof.

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4. (original) A compound, comprising a first aromatic moiety fused to a second aromatic moiety, wherein the first aromatic moiety is naphthalene-1,4-dione group and the second aromatic moiety is an N-substituted triazole-N-oxide group, or a pharmaceutically acceptable salt thereof.

5. (original) The compound of claim 4, wherein the substituent in the N-substituted triazole-N-oxide moiety comprises an alkylaryl group.

6. (original) The compound of claim 5, wherein the alkylaryl group is benzyl group.

7. (original) A compound comprising a benzopiperazine moiety fused to a substituted imidazole moiety, or a pharmaceutically acceptable salt thereof.

8. (original) The compound of claim 7, wherein the benzopiperazine moiety includes an alkylpiperazinyl group.

9. (original) The compound of claim 8, wherein the alkylpiperazinyl group is methylpiperazinyl group.

10. (original) The compound of claim 7, wherein the imidazole moiety comprises a phenyl substituent.

11. (original) The compound of claim 10, wherein the imidazole moiety further includes a halogenated aromatic group attached to a nitrogen atom in the imidazole structure.

12. (original) The compound of claim 11, where the halogenated aromatic group is a bromophenyl group.

13. (original) A compound, comprising an azaanthracene moiety and a secondary amino moiety, or a pharmaceutically acceptable salt thereof.

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14. (original) The compound of claim 13, wherein the secondary amino moiety is attached to the nitrogen-containing ring of the azaanthracene moiety.

15. (currently amended) A method for treating a cell proliferative disorder in a subject, said method comprising administering an effective amount of the compound of claim 1 ~~any compound of claims 1-3, or any combination thereof~~, or pharmaceutically acceptable salts, hydrates, solvates, crystal forms and individual diastereomers thereof, to a subject in need of such treatment.

16. (original) The method of claim 15, wherein the cell proliferative disorder is selected from a group consisting of basal cell carcinoma, medulloblastoma and meningioma.

17. (original) The method of claim 15, wherein the subject is a human or another mammal.

18. (original) The method of claim 15, further including administering the compound in combination with a therapeutic agent, immunomodulatory agent, therapeutic antibody or an enzyme inhibitor.

19. (original) The method of claim 18, wherein the therapeutic agent is selected from a group consisting of methotrexate, cisplatin/carboplatin, canbusil, dactinomycin, taxol (paclitaxel), antifolate, colchicine, demecoline, etoposide, taxane/taxol, docetaxel, doxorubicin, anthracycline antibiotic, doxorubicin, daunorubicin, carminomycin, epirubicin, idarubicin, mithoxanthrone, 4-dimethoxy-daunomycin, 11-deoxydaunorubicin, 13-deoxydaunorubicin, adriamycin-14-benzoate, adriamycin-14-octanoate or adriamycin-14-naphthaleneacetate, irinotecan, topotecan, gemcitabine, 5-fluorouracil, leucovorin carboplatin, cisplatin, taxanes, tezacitabine, cyclophosphamide, vinca alkaloids, imatinib, anthracyclines, rituximab, trastuzumab, bevacizumab, OSI-774, and Vitaxin.

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20. (currently amended) A pharmaceutical composition comprising the compound of claim 1~~any compound of claims 1-3, or any combination thereof~~, in a pharmaceutically acceptable carrier.

21. (currently amended) An article of manufacture comprising packaging material and a pharmaceutical composition contained within the packaging material, wherein the packaging material comprises a label which indicates that the pharmaceutical composition can be used for treatment of disorders and wherein said pharmaceutical composition comprises the compound of claim 1~~any compound of claims 1-3, or any combination thereof~~.

22. (currently amended) A process for making a pharmaceutical composition comprising the compound of claim 1~~combining any compound of claims 1-3, or any combination thereof~~, or its pharmaceutically acceptable salts, hydrates, solvates, crystal forms salts and individual diastereomers thereof, and a pharmaceutically acceptable carrier.

23. (currently amended) A method of inhibiting an altered growth state of a cell having a *Wnt* receptor, comprising contacting the cell with a composition comprising the compound of claim 1~~any compound of claims 1-3, or any combination thereof~~.

24. (original) The method of claim 23, wherein the compound is a *Wnt* signal transduction agonist.

25. (original) The method of claim 24, wherein the agonist agonizes *Fz* inhibition of *Wnt* signaling.

26. (original) The method of claim 24, wherein the agonist agonizes *GSK3 β* inhibition of *Wnt* signaling.

27. (original) The method of claim 23, wherein the compound is a *Wnt* signal transduction antagonist.

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28. (original) The method of claim 27, wherein the antagonist antagonizes *Fz* inhibition of *Wnt* signaling.

29. (original) The method of claim 27, wherein the antagonist antagonizes *GSK3 β* inhibition of *Wnt* signaling.

30. (original) The method of claim 27, wherein the antagonist interferes with activation of a *Wnt*-mediated signal transduction pathway.

31. (original) The method of claim 23, wherein the cells are normal cells.

32. (original) The method of claim 23, wherein the cells are cancer cells.

33. (original) The method of claim 23, wherein the contacting is performed *in vivo*.

34. (original) The method of claim 23, wherein the contacting is performed *in vitro*.

35. (original) The method of claim 23, wherein the composition is administered as part of a therapeutic or cosmetic application.

36. (original) The method of claim 35, wherein the therapeutic or cosmetic application is regulation of neural tissues, bone and cartilage formation and repair, regulation of spermatogenesis, regulation of smooth muscle, regulation of lung, liver and other organs arising from the primitive gut, regulation of hematopoietic function, or regulation of skin and hair growth.

37. (currently amended) A method of identifying a compound that modulates cell proliferation in a cell having a *Wnt* receptor, a *Fz* receptor or a *GSK3 β* receptor, comprising:

- a) incubating components comprising the compound of claim 1~~any compound of claims 1-14~~, a test compound, and a cell having a *Wnt* receptor, a *Fz* receptor or a *GSK3 β* receptor, under conditions sufficient to allow the components to interact; and
- b) measuring the ability of the test compound to affect cell proliferation by detecting an increase or decrease in expression of signal transduction activity.

38. (original) The method of claim 37, wherein the signal transduction activity is expression of *Wnt*.

39. (currently amended) A method for inhibiting the growth of a tumor cell in a subject in need thereof, comprising administering to a tumor cell an effective amount of the compound of claim 1~~any compound of claims 1-3~~.

40. (original) A method of monitoring a therapeutic regimen for treating a subject having a cell proliferative disorder comprising determining a change in cell proliferation during therapy.

41. (original) The method of claim 40, wherein the therapy comprises the treatment of claim 15.